$\begin{tabular}{ll} Additional chart coverage may be found in CATP2, Catalog of Nautical Charts. \\ SECTOR 9 --- CHART INFORMATION \end{tabular}$

SECTOR 9

SOUTH AND EAST COASTS OF MINDANAO

Plan.—This sector describes the S and E coasts of Mindanao, including off-lying islands and dangers. The first part of the sector describes the S coast from Caldera Point, E to Cape San Agustin. This is followed by a description of the E coast from S to N, from Cape San Agustin to Cauit Point.

General Remarks

9.1 Wind—Weather.—In the vicinity of Basilan Strait E and NE winds, accompanied by clear weather, occurs in January. The same conditions prevail during February, March, and April, but there are occasional NW breezes of short duration.

In May and June the wind blows from the SE and is more or less variable. Squalls occur during June, and towards the end of the month, fresh SW breezes commence. Winds from the SW of some strength blow during July, August, and September.

These winds are accompanied by much rain and foul weather. Gales occuring at this time last more than 3 or 4 days. North and NE winds occur during November and December, and the Northeast Monsoon becomes more or less steady during the latter month.

Throughout the year, when the seasonal wind is not strong, land and sea breezes are prevalent.

About 1 percent of the total number of typhoons occuring in the Philippines affect the Davao area. Typhoons passing to the N, between June and October, cause increased seas and swells. The storms develop far enough S so as to affect Davao can be expected from November to February. They do not form during the normal typhoon season.

The visibility is generally good, although it is temporarily restricted in heavy rain squalls.

The rainfall at Davao averages about 2,000mm a year. It is fairly evenly distributed throughout the year. There is no definite dry season. Less rain falls in January and February, with averages between 117 to 127mm. The wettest months are May and June with about 235mm of rainfall.

On the S coast of Mindanao, the Northeast Monsoon predominates. Interruptions to the Northeast Monsoon occur more frequently at Davao Gulf than at places farther N. There are no pronounced maximum rain nor dry seasons.

On the E coast, the Northeast Monsoon does not become established until December, when it prevails over the area until March.

The Southwest Monsoon, which is neither as strong nor steady as the NW, is usually accompanied by cloudy and rainy weather. The entire E coast is exposed to the full force of the Northeast Monsoon.

Typhoons are most frequent from July to November and are in most cases severe.

The winds usually blow 60 to 70 miles per hour, but a velocity of 131 knots has been recorded. These storms cause heavy swells and high seas. Typhoons are rarely experienced S of 5°N.

Tides—Currents.—Semi-diurnal tides predominate on the S and E coast of Mindano. Strong tidal currents are known to exist close off the S and E coast, and their direction, strength and consistency, depend to a great extent upon the prevailing monsoon and on the character of the coastline.

The tidal currents in the Mindanao River are strong. It is reported that the ebb current has a rate of 2 knots and the flood current a rate of 0.5 knot.

There is a weak N current off the S coast of Mindanao. Close to the coastal reef this current appears to set in an opposite direction.

The tidal currents in Basilan Strait follow the direction of the channel, and near the islands and shoals they follow the edges of the reefs. Their general direction, when obstructed, is W during the rising tide and E during the falling tide. The rate is 2 to 3 neaps and from 5 to 6 knots at springs.

The tidal currents have been observed as setting in the reverse directions during the months of November and December. They also have been observed as setting in the same direction for 24 hours even though two high and two low tides occured on that day. The direction is generally E.

The turn of the currents takes place later in Basilan Strait than at Zamboanga. The change begins first first on the coast of Mindanao, and finally on the coast of Basilan Island.

Strong and irregular tidal currents and rips are found in the vicinity of the shoals and banks off the NW side of Basilan Island.

Close W of Malamaui Island, the curents set N on the rising tide and S during the falling tide. The rate diminishes as the distance from the island from the island increases.

Davao has a semidiurnal type of tide. There is some inequality but the principal variations follow the moon's changing phases.

The current in Pakiputan Strait has a rate of about 2.5 knots and occasionally sets S both with a rising and falling tide. This usually occurs during strong N winds or after a SW wind during which the water has been backed up into the N end of the gulf. The current off Davao floods N and ebbs S. It sweeps at right angles with N and S faces of the pier.

Between Tapian Point and Linao Point there is a small continuous N current offshore. Along the reef-line a reverse current of 0.5 to 1 knot sets SE with a current in the opposite direction close inshore between Tuna Point and Sarangani Bay.

Off Palimban Point, 12.5 miles SE of Tuna Point, a moderate current, sets NW along the shore.

Offshore, a strong SE current setting toward Sarangani Strait is encountered.

Tidal currents in the vicinity of the Sarangani Islands are strong. Through Sarangani Strait the flood sets W and the ebb E. On the E side of Sarangani Island the flood sets S with a rate of about 3 knots, being deflected by the 37m bank off the SE side of the island. Heavy rips have been observed N and S of Saranangani Island and S and W of Balut Island.

Off the E coast of the Philippines the North Equatorial Current divides into two major parts. One part turns N sending branches into the insular waters of the archipelgo and the remainder continues N along the coast of Luzon to become the Kuroshio.

The other part turns S along the E coast of Mindanao sending a branch SE into the Pacific Equatorial Countercurrent

Directions.—The S coast of Mindanao may be approached from the E or the S in deep water mostly free of dangers.

The W approach through Basilan Strait should be made with caution, using one of the two channels separated by the Santa Cruz Bank.

The ocean approaches to the E coast are mostly free of dangers. Most of the dangers are found within a few miles of the E coast except to the NW of Cauit Point, and this part should be approached with caution.

Caldera Point to Zamboanga

9.2 Caldera Point (6°57'N., 121°58'E.) forms the SW extremity of the Zamboanga Peninsula. The point forms the W side of Caldera Bay. A prominent white chimney, 17m high, and a large conveyor, marked by lights, stand on the point.

The bay affords anchorage, in depths of 11 to 14.6m, but is open to the SE. Tidal currents set strongly onto Caldera Point.

Recodo (6°57'N., 121°58'E.) (World Port Index No. 59590) lies within Caldera Bay, close E of Caldera Point.

The inner part of the port has space for four light draft vessels, with a depth in the channel of 2m. The Timex Wharf, a T-headed concrete wharf, projects 36m E from Caldera Point.

The wharf is 96m long and has a reported depth of 11m. Vessels up to 183m can be accommodated, heading N, using both anchors. Pilots are available and board off Zamboanga.

Berthing and unberthing is reported to be difficult during the Southwest Monsoon (May to September). Vessels usually berth at the start of the E current.

Between Caldera Point and Zamboanga, about 7 miles ESE, the coast is low, steep, and wooded. There are four oil depots at Gavilan Point and Baliwasan, capable of accepting vessels of up to 4,000 grt and a 5.5m draft.

Anchorage may be taken off the town of San Mateo, 4 miles ESE of Caldera Point, in depths of 14.6 to 27.4m, sand.

Elsewhere along this coast, the bottom is foul and uneven. Prominent white oil tanks stand 1 mile ESE of San Mateo.

9.3 Baliwasan (6°55'N., 122°03'E.) lies about 2 miles ESE of San Mateo. A T-shaped wharf, privately maintained for loading copra pellets and coconut oil, extending 140m from the shore with an 85m long berthing face, and an alongside depth of 12.5m can accommodate vessels up to 152m long, heading ESE using both anchors. Draft on the completion of loading must not exceed 9.75m forward and 10.97m aft. Shoal water exists 0.1 mile ESE of the pier. A pilot is available and will board off Zamboanga.

Santa Cruz Bank (6°53'N., 122°01'E.) is a coral bank, the N edge of which lies about 1.5 miles from the coast of Mindanao. The islands of Great and Little Santa Cruz lie within the bank.

Great Santa Cruz Island (6°52'N., 122°04'E.), which is low, flat, and wooded lies on the E part of Santa Cruz Bank.

President Shoal lies S and SE of Great Santa Cruz Island and has depths of 4.6 to 8.5m, which may best be seen on the chart. There is a 18.3m patch 2 miles SE of President Shoal.

Little Santa Cruz Island (6°53'N., 122°02'E.), which lies about 0.8 mile NW of Great Santa Cruz Island, is also low, flat, and wooded. A light is shown on the N side of the island. Recently, this light was reported extinguished.

A drying reef extends 0.5 mile from the E and W extremities of the islands.

Zamboanga (6°54'N., 122°04'E.)

World Port Index No. 59580

9.4 Zamboanga is the capital of the Province of Zamboanga and the principal town in Mindanao. It is a first port of entry and a quarantine station. The town is partially obscured by palm trees, but the silver dome of the church and the red roof of the government building are prominent. The current alongside the town pier moves W at 6 knots on the flood and E at 4 knots on the ebb, depending on the range of tide.

Wind—Weather.—The harbor area of the town is well protected from the Northeast Monsoon. Southwest gales are sometimes experienced in the port. Their approach can be usually foretold by masses of flying clouds and threatening skies to the NW. The wind usually begins to blow from the NW and then backs to the SW.

Tides—Currents.—Strong E and W currents of up to 6 knots have been reported.

Depths—Limitations.—The government pier, a T-headed concrete pier, projects 122m SSW from the main quay at Zamboanga.

The T-head is about 500m long, with reported depths alongside of 9.1m at the E end, diminishing to 6.4m at the W end.

It has also been reported that the depths at this pier range from 5.6 to 8.8m.

A buoy is moored about 0.1 mile SE of the SE extremity of the pier and marks a shoal with a swept depth of 0.9m.

It was reported that a new jetty close NW and a new wharf 800m ESE of the existing Government Pier have been constructed.

There is also a 274m long marginal wharf, with depths of 3.7 to 5m alongside.

Aspect.—Zamboanga is partially obscured by palm trees, but the silver dome of the church and the red roof of the government building are prominent as is the main wharf and the light on it. A radio tower stands 0.4 mile NE of the light. Two radio towers, showing red obstructions lights, stand about 0.3 mile N and 0.4 mile NE of the light. Another radio mast stands about 0.7 mile NW of the light.

Pilotage.—While pilotage is compulsory for vessels berthing alongside, it is optional if anchoring off the main wharf. The pilot boards off Little Santa Cruz Island for vessels approaching from the W and off the Rio Hondo from the E. The pilot boat is white with the word "Pilot" on the deck house. Pilotage should be requested at least 24 hours in advance.

Anchorage.—The anchorage off Zamboanga is not very good due to the steep bank, hard and uneven bottom, and the

swell and currents. Anchorage may be taken 0.25 mile SSE of the E end of the main wharf, in a depth of 29m. This anchorage is exposed to gales from the W and SW.

Storm signals are shown from a mast in front of the custom house at the inner end of main wharf.

Directions.—The approaches to Zamboanga are deep and clear. However, vessels going alongside the S face of the main wharf should proceed with caution, especially during the W current.

This is due to the existence of a shoal area near the W end of the wharf, with depths of 4.9m. Approaches to the wharf should be made against the current. Departure should be made during slack water.

Tictauan Channel and Off-lying Islands

9.5 Tictauan Channel (6°54'N., 122°09'E.), between Tictauan Island and the S end of Zamboanga Peninsula, is about 0.5 mile wide at its narrowest point.

There are depths of 18 to 26m in the fairway. This channel should not be used for other than a temporary anchorage because of strong tidal currents.

Tictauan Shoal (6°54'N., 122°09'E.), with a depth of 5.5m, sand and coral, lies in the middle of Tictauan Channel, about 2 miles E of **Mariqui Point** (6°53'N., 122°06'E.). It is usually marked by tide rips.

Masinloc Anchorage (6°56'N., 122°11'E.) is formed by the channel between Sacol Island and the SE side of Zamboanga Peninsula.

Vessels may anchor virtually anywhere in the anchorage, in depths of from 11 to 22m, sheltered from wind and sea. A village stands on the SW side of the anchorage.

The N entrance of Masinloc Anchorage, which requires local knowledge, is divided into two channels by a number of shoals. The W channel, which is about 0.3 mile wide, has a depth of 10m.

The E channel, which is 0.5 mile wide, has a least depth of 11m. Three islands lie off the S entrance to Masinloc Anchorage, but are clear of the fairway.

Sacol Island (6°58'N., 122°14'E.) is low on its W side and consists mainly of mangrove swamps. Two prominent hills stand on the E part of the island. Pangapuyan Island lies close off the SW extremity of Sacol Island and is covered with palm trees. The channel between Pangapuyan Island and Tictauan Island should not be attempted without local knowledge. Balabac Island, a small mangrove island, lies on the W side of the N entrance of Tictauan Channel.

Malanipa Island (6°53'N., 122°17'E.) lies 6.25 miles E of Tictauan Island. The island is wooded and has a prominent village on its SW side.

A small island lies on a bank extending 0.5 mile E from the S extremity of Malanipa Island. Great Sand Bank, made up of coral and sand, extends nearly 5 miles W of Malanipa Island. The bank has a least depth of 0.9m.

Sinonog Island (6°58'N., 122°20'E.) lies 2.75 miles SE of the E extremity of Sacol Island. The island is low except for a cliff on its E side. A sand patch, with a depth of 8.5m, lies about 1.5 miles ESE of Sinonog Island.

Tulnalutan Island (6°59'N., 122°21'E.) lies about 3.75 miles E of the E extremity of Sacol Island. The island is cone shaped.

An islet lies close off the E side of the island. Angosto Shoal is a rocky patch, with a least depth of 2.7m, and lies 3.75 miles ENE of Tulnalutan Island.

Roldan Rock, with a depth of 1.2m and steep-to, lies 2.25 miles NNE of Sacol Island.

Sibuguey Bay

9.6 Sibuguey Bay (7°25′N., 122°35′E.) lies with its entrance between Panubigan Islands and Lutangan Island, 36.5 miles ENE. A number of small reefs and shoals lie across the entrance to the bay and can best be seen on the chart. Sharp Peak, 753m high, is a prominent peak and stands 34 miles N of the S extremity of the Zamboanga Peninsula.

Mount Silingan, on the W side of the head of the bay, is prominent from all parts of the bay.

Malasugat Point (7°05'N., 122°14'E.) lies on the SE side of the Zamboanga Peninsula. The point is low, wooded, and fringed by a narrow reef. Two shoal patches, with depths of 1.8 and 6.7m, lie 1.5 miles and 1.25 miles S, respectively, of the point.

Panubigan Islands (7°09'N., 122°16'E.) lie up to 2 miles off the coast between Malasugat Point and Lawigan Point. This group of about 20 islets and rocks provides sheltered anchorage for vessels with local knowledge. The seaward sides of these islets are steep-to, but foul ground lies between them and the coast.

Taguite Bay (7°20'N., 122°18'E.) is entered between Taguite Point and Bluff Point. The bay is shallow and indents the coast to a distance of two miles. Taguite Island, a small wooded islet, lies in the middle of the entrance to Taguite Bay.

Vitali Island (7°22'N., 122°21'E.) lies NNE of Taguite Bay. The irregular shaped SW end of Vitali Island forms the NE side of Taguite Bay. Vitali Point forms the NE extremity of the island.

The island is densely wooded except for the area near Vitali Point where low hills are grass covered. A steep-to rock, awash, lies about 0.8 mile SSE of Vitali Point.

9.7 The **Tigbauan Islands** (7°22'N., 122°25'E.) are a group of five islands and one rock lying E and SE of Vitali Point. Tigburacao Island, 3.75 miles SE of Vitali Point, the southeasternmost of the group, is low, flat, and densely wooded.

Two large rocks lie 91m SE of the island. These rocks are very prominent and when seen from the SW they appear as one.

White Rock (7°21'N., 122°25'E.), 0.3m high, lies on a reef 0.75 mile WSW of Tigburacao Island. Gatusan Islands, two wooded islands fringed with rocks, lie 1.75 miles SSE of Vitali Point.

Bacungan Island (7°23'N., 122°25'E.) lies 2.75 miles E of Vitali Point. The channel between the island and Vitali Point has a least depth of 5m in the fairway.

Lapinigan Island (7°24'N., 122°24'E.), 57m high and densely wooded, lies 0.6 mile NE of Vitali Point. The island appears as a cone from SW, with a steep slope on its E side.

Tungauan Bay (7°27'N., 122°22'E.) is entered between Vitali Point and Linguisan Point, about 7 miles NNE. The bay indents the coast to a distance of about 4 miles. There are

extensive mud flats off the W shore of the bay. Basan Reef, a dangerous detached coral reef, lies on the S side of the bay.

Tigbucay Bay, a small cove, lies in the N part of Tungauan Bay. The S part of Tigbucay Bay is deep and clear of dangers, but the N part is shallow. There is anchorage in this bay, in depths of 18m, mud.

Port Banga (7°31'N., 122°26'E.) is entered between Tigbucay Point and Linguisan Point. The entrance is two miles wide between the two points. The port provides good anchorage, protected from all winds, and is navigable for 2 miles from the entrance for large vessels, and nearly to its head for small vessels.

9.8 Linguisan Point (7°30'N., 122°26'E.), low and wooded, is fringed by a reef which extends 0.2 mile offshore. East of the point is a coral shelf which extends 0.3 mile offshore.

Above-water rocks lie on the E extremity of this shelf. A dangerous drying detached coral reef lies 1 mile SE of the SE point of the peninsula, of which Linguisan Point is the SW extremity.

Bangaan Island (7°30'N., 122°25'E.), which is sparsely wooded, lies in the middle of the channel to Port Banga. The island divides the entrance into two channels. Buildings and a ruined wharf may be seen on the N side of the island. A rocky ledge, covered at HW, extends 0.45 mile from the SW point of the island.

Bagolibud Point (7°35'N., 122°30'E.) lies at the NE end of the peninsula which forms the SE side of Port Banga. The E shore of the peninsula is composed of cliffy points with sandy beaches between. The S part of the peninsula is grassy with scattered trees. A small cove lies nearly 1 mile SSW of Bagolibud Point.

A small islet, which is connected to the mainland, lies about 3 miles SSW of Bagolibud Point.

9.9 Busan Bay (7°36'N., 122°28'E.) lies about 2.5 miles N of Port Banga, and is entered between Bagolibud Point and Calug Point, 3.5 miles NNW. Tupilac Hill lies 3 miles NNW of Calug Point and is the most prominent landmark in the vicinity of Busan Bay. It is a conical grassy hill, and having a wooded background, can be seen a considerable distance.

Good anchorage in Busan Bay exists between Lalim Point, situated 1.75 miles W of Bagolibud Point, and the reefs extending from the SW corner of Busan Bay, in depths of 11 to 13m, mud. The bay is exposed to NE winds.

Diligan Island (7°35'N., 122°29'E.) lies about 1.3 miles NW of Bagolibud Point. The island is low and densely wooded. The island, fringed by a narrow reef, may be passed at a distance of about 0.5 mile.

Laboyoan Point (7°42'N., 122°31'E.) lies about 4 miles NNE of Calug Point. The point is mangrove covered and fringed by a reef. A rock, awash, lies 1 mile SSW of the point. Buluan Island is the largest and most conspicuous island in Sibuguey Bay and lies about 1 mile ESE of Laboyoan Point.

There is a channel about 0.3 mile wide between Buluan Island and Laboyoan Point, with depths of 14 to 18m in the fairway.

9.10 Madiaop Point (7°44'N., 122°35'E.), lying 4.5 miles NE of Laboyoan Point, is bordered by mangroves and numerous rocks awash. Mount Silingan, 5.5 miles W of Madiaop Point, is conspicuous from all parts of Sibuguey Bay.

Bacalan Point (7°46'N., 122°37'E.), covered with trees, lies 2.5 miles ENE of Madiaop Point. The point is part of an islet which lies at the mouth of a small river. The islet is connected to the mainland by an extensive mangrove swamp.

Taynabo Point (7°46'N., 122°40'E.) lies about 3.25 miles E of Bacalan Point. The S and E sides of the point are composed of cliffs about 4.6m high. A narrow isthmus of mangrove connects the point with the mainland.

The **Kabasalan River** (Kabsalan River) (7°46'N., 122°46'E.) enters the NE corner of Sibuguey Bay from a NW direction and has a common entrance with the Siay River.

Kabasalan (Kabsalan), the headquarters of a rubber company, stands on the banks of the river, 3.75 miles above its confluence with the Siay River.

There is a wooden wharf at Kabasalan that has a berthing face 32m long, with a depth of 2m alongside.

Santa Clara (7°47'N., 122°41'E.) (World Port Index No. 59575), a lumber loading pier, lies 1.5 miles NE of Taynabo Point. A conspicuous green warehouse, which shows a light, stands near the root of the pier. A least depth of 7m was reported alongside the SW part of the pier.

9.11 Tayoman Point (7°41'N., 122°47'E.) is situated on the NE side of Sibuguey Bay, 8.5 miles SE of Taynabo Point.

The coast between Tayoman Point and Patan Point, about 5.5 miles S, is intersected by a number of small rivers. Mount Sibuguey stands 1.75 miles ENE of Patan Point.

Taba Bay (7°34'N., 122°48'E.) is entered between Patan Point and Cabog Point, about 3 miles S. Two small islands lie on a reef about 0.3 mile N of Cabog Point.

There is a SW entrance into the bay between Cabog Point and the two small islands. This entrance has a beaconed channel, with a depth of 3.7m, and is used by small vessels with local knowledge.

The N channel, about 0.3 mile wide, is entered about 0.3 mile SW of Patan Point and has depths within the entrance of 22 to 29m. Depths decrease gradually to 9m about 1.8 miles within the entrance. The head of the bay is shallow.

Taba Bay is considered the best anchorage on the E side of Sibuguey Bay. Vessels anchor according to their draft. The deepest water is found in the middle of the bay. Generally, the anchorages are well protected and the holding ground is good.

Locsico Bay (7°27'N., 122°47'E.) lies 6.5 miles S of Taba Bay. The shores of the bay are fringed with reefs and lined with mangroves. A reef divides the bay into two arms. The bay is only suitable for small vessels with local knowledge.

9.12 Pandalusan Island (7°28'N., 122°41'E.) is wooded and lies about 5.5 miles W of Locsico Bay. A drying reef extends 0.2 mile SW from the island. A reef, nearly awash, extends 0.2 mile E from the island. Northwest Rock is situated about 2.3 miles NW of Pandalusan Island. This rock, which is awash, is hard to identify and should be given a wide berth.

West Circe Shoal (7°28'N., 122°38'E.) lies about 11 miles SSW of Northwest Rock. The shoal is steep-to, with a least depth of 5.5m. East Circe Shoal lies 3.5 miles ESE of West

Circe Shoal. This shoal is steep-to on its N side and has a least depth of 4.9m. A number of unnamed shoals lie to the S of West Circe Shoal and can best be seen on the chart.

Olutanga Island (7°21'N., 122°52'E.) lies close S of the peninsula that forms the E side of Sibuguey Bay. The island is large and irregular in shape. The W part of the N coast of the island is separated from the mainland by a narrow and tortuous strait. Seboto Point, the SW extremity of the island, is bordered by a sandy beach. A village stands on the point.

Lutangan Island (7°17'N., 122°51'E.) is the SE entrance point of Sibuguey Bay. The island is low and densely wooded. It lies on the SE edge of a partly drying reef extending 1.25 miles from the S side of Seboto Point.

The SE side of the island is bordered by low cliffs and a sandy beach.

Sibuguey Bay to Dumanquilas Bay

9.13 Silagui Island (7°17'N., 122°51'E.) lies on the same reef as Lutangan Island, and close N of it. The island is low and partly wooded. A small rocky islet, covered with bushes, lies 0.25 mile E of Silagui Island.

A small coral head, which dries, lies 0.25 mile NE of the islet. Small vessels with local knowledge may take anchorage in a pocket of the reef, 0.75 mile NNW of Silagui Island, in a depth of 15m.

Suba Nipa (7°18'N., 122°51'E.) (World Port Index No. 59573), a lumber port, lies 1 mile N of Silagui Island.

There is a privately owned pier, 670m long and 15m wide, with a depth of 11m alongside. The pier can accommodate vessels up to 10,000 grt.

Pongca Bay (7°21'N., 122°57'E.) lies about 7 miles NE of Lutangan Island. This bay is encumbered with dangers and does not offer anchorage.

Arayat Shoal (7°16′N., 122°58′E.), with a least depth of 4.9m, lies about 6.5 miles E of Lutangan Island. A buoy marks the SE side of the shoal. There are several dangerous shoals within the area encompassed by a line drawn through Lutangan Island, Taguisian Point, and Arayat Shoal. These dangers can best be seen on the chart.

Liscum Bank (7°15'N., 123°05'E.), with a depth of 13.7m, lies 9.5 miles SE of Taguisian Point. Breeches Shoal, an extensive rocky shoal with a least depth of 7.6m, lies about 9.5 miles E of Taguisian Point.

Port Sibulan (7°29'N., 122°54'E.) is a large irregularly shaped body of water which lies between the NE coast of Olutanga Island and Mindanao. The port is entered between Taguisian Point and Lapat Point.

Coayan Bay (7°24'N., 122°57'E.) is situated on the SW side of Port Sibulan. This bay has not been thoroughly surveyed and its head is shallow. A rock, 5.1m high, lies close off the S entrance to the bay.

Middle Reef (7°25'N., 122°59'E.), a large detached reef, with a least depth of 2.7m, lies in the middle of the entrance to Port Sibulan. A beacon marks the W.

Balangan Bay (7°29'N., 122°58'E.) lies on the NE side of Port Sibulan. The head of the bay is shoal for a distance of 0.75 mile from its head. The bay is approached between the reefs projecting from Lapat Point and Letayen Island. This channel has a least depth of 18m in the fairway.

Anchorage can be taken, in a depth of 15m, about 0.5 mile NE of Letayan Island.

9.14 Sumangul Point (7°27'N., 122°54'E.) forms the N extremity of Olutanga Island. It terminates in a narrow neck of land covered with coconut trees and is separated from the land S of it by a depression, very noticeable from E. The point is easily identified from the entrance to Port Sibulasn.

A small settlement stands on the point. Tumalung Bay indents the middle of the N coast of Olutanga Island.

Depths in this bay are very irregular, with numerous detached patches of sand and coral in its N part.

The S side shoals gradually to within 1 mile of the head, where there are extensive drying mud flats.

Tantanang Bay (7°31'N., 122°54'E.) lies at the head of Port Sibulan. The bay has depths of 18.4m in the entrance and shoals gradually towards its head. Sheltered anchorage may be taken in the bay.

Alicia (7°31'N., 122°56'E.) (World Port Index No. 59560), a small town and the site of a sawmill, lies on the E side of Tantanang Bay.

There is a T-headed wharf, with a berthing space of 43m and an alongside depth of 5.2m.

Dumanquilas Bay

9.15 Dumanquilas Bay (7°35'N., 123°05'E.) is 11 miles wide at its entrance between Lapat Point and Dumanquilas Point. The bay provides shelter and anchorage, with good holding ground, among the islands and bays within the bay.

Tidal currents within the channels entering the bay usually are not greater than 1 knot, but the currents near the shoals in the approaches are stronger.

Bacao (7°33'N., 123°01'E.), the site of a lumber mill, lies 6 miles NNE of Lapat Point. The wooden pier at the mill is in ruins.

Malangas (7°38'N., 123°02'E.) lies about 4 miles N of Bacao. There is an L-shaped pier 0.3 mile SE of Malangas, with a berthing face 41m long and depths of 5.8 to 7m alongside. Depths alongside the inner face range from 4 to 5m.

Conspicuous landmarks off Malangas are a schoolhouse with a metal roof, the coal storage bin, and the pier. There is anchorage off Malangas, in depths of 11 to 14m, mud.

Nipa Nipa Islands (7°37'N., 123°05'E.) are three densely wooded islets that lie in the middle of the entrance of the inner part of Dumanquilas Bay.

Puli Puli Island, small and reef fringed, lies about 0.3 mile NE of Igat Point.

Pamintayan Point (7°41'N., 123°05'E.) lies about 3.5 miles NNE of Igat Point. A pier, with a conveyor belt, projects SE from the point. The head of the pier has a reported depth of 11.6m. A small wharf lies close N of the pier and had a reported depth of 5.5m alongside.

9.16 Between Dumanquilas Point and Carabuca Point, about 7 miles NW, the coast is made up of low hills covered with high trees. Tide rips may be seen about 0.5 mile SW of Labucan Point.

Triton Island, high and wooded, lies about 2.5 miles NW of Dumanquilas Point.

Igat Point (7°36'N., 123°06'E.), the W extremity of Igat Island, lies 2.75 miles N of Carabuca Point.

The entrance to a bay lies between these two points. Igat Island is separated from the mainland by a channel which dries. Igat Bay is a large inlet on the E side of Dumanquilas Bay.

Margosatubig (7°35'N., 123°10'E.) (World Port Index No. 59550) lies on the S shore of Igat Bay. The hospital building standing on a hill SW of the town is prominent.

The town wharf has a length of about 22m, with a depth of 4.5m alongside.

Vessels take anchorage off the town, in depths of from 22 to 26m, 0.5 mile offshore, W of the wharf.

9.17 Maligay Bay (7°30'N., 123°15'E.) is entered between Dumanquilas Point and a point on the Baganian Peninsula, 6 miles E. The W and N sides of the bay consist of a series of small rocky points and in places some mangroves.

The E side is bordered by mangroves and fringed with drying coral which extend up to 1 mile offshore. A series of extensive shoals extend about 3.5 miles W from the E entrance point of the bay.

Anchorage may be taken, in depths of from 9 to 27m, in an area about 0.5 mile wide close N of the westernmost bank in the entrance to the bay.

There is also anchorage, in 26 to 29m, about 0.3 mile NE of Maculay Island. Small vessels can anchor in a bight in the NE corner of the bay.

Baganian Peninsula (7°27'N., 123°20'E.) lies between Maligay Bay and Illana Bay. Flecha Point forms the S extremity of the peninsula. A river discharges about 1.5 miles NE of the point.

There is anchorage on a sandy flat that extends 1 mile off Flecha Point, in depths of 18.3 to 37m. This anchorage is exposed to the Southwest Monsoon.

Paniquian Island (7°22'N., 123°20'E.), which is sandy and wooded, lies about 4.5 miles W of Flecha Point. A drying reef fringes the island and extends up to 0.5 mile to the W and S of it.

There is an exposed anchorage over a shoal extending S from the island, in depths of from 9 to 15m.

Illana Bay

9.18 Illana Bay (7°35'N., 123°40'E.) is entered between Tambulian Point and Tapian Point, about 39 miles ESE. The bay indents the coast in a N direction. The bay is very deep in its middle part.

Tidal currents run at a considerable rate within the bay. Vessels crossing the bay are often set well S.

Limbug Cove (7°28'N., 123°24'E.) lies 6 miles NNW of Tambulian Point. Reefs project from both entrance points narrowing the entrance channel to about 0.1 mile.

A bare, white rocky bluff is a good mark for identifying the entrance. Small vessels with local knowledge may take anchorage in the cove, in a depth of 18m.

Port Sambulauan (7°33'N., 123°21'E.) lies about 6 miles NNW of Limbug Cove. It is a narrow tortuous break in the coastal reefs and is of little importance.

Tidal currents are reported to produce eddies at the entrance. Sambulauan Hill is prominent and stands at the head of Port Sambulauan.

Malubug Bay (7°36'N., 123°25'E.) lies about 3.5 miles NNE of Port Sambulauan. The bay is encumbered by reefs, most of which dry. Narrow and unmarked channels lead between the reefs and dangers.

The shores of the bay are bordered by mangroves. Two small settlements stand on the N shore of the bay.

Rios Rock (7°31'N., 123°28'E.), with a least depth of 1.8m, lies about 4 miles NE of the entrance to Limbug Cove.

9.19 Sagayaran Island (7°37'N., 123°28'E.), high and wooded, lies S of the N entrance of Malubug Bay. The island is fringed by a reef and separated from the mainland by foul ground.

Anchorage can be taken by small vessels with local knowledge, in a depth of 29m, about 0.3 mile W of the W extremity of Sagayaran Island.

Pagadian Bay (7°49'N., 123°31'E.) lies about 10 miles N of Sagayaran Island. The land on the W side of the bay rises gradually towards the mountains inland, while the land on the N side is low and flat.

Boca Reefs are a chain of reefs which lie in the entrance to Pagadian Bay. Some of these reefs are always awash. There are several narrow and unmarked channels between these reefs.

Pagadian (7°50'N., 123°26'E.) (World Port Index No. 59530) lies in the NW part of Pagadian Bay. A 139m long pier, with a depths of 6m alongside, is situated here. A light is shown from the pier. A 3m coral patch lies 161m SSW of the pierhead.

Vessels can anchor in the middle of Dupulisan Bay, 2.5 miles S of Pagadian, in a depth of 27.4m, mud. Anchorage can also be taken between Dumagok Islet and Lampaqui Islet, in a depth of 23.8m.

Illana Bay—East Side

9.20 Calibon Point (7°50'N., 123°37'E.), about 9 miles E of Pagadian, is fringed by a narrow, steep-to coral reef. The land N of it rises to an elevation of over 300m, and is covered with tall grass and small trees. This ridge can easily be identified off Tambulian Point by its green appearance.

Caromata Bay (7°47'N., 123°42'E.) is 7.25 miles ESE of Calibon Point. A chain of reefs fronts the bay. Narrow channels lead between the reefs into the clear part of the bay. Vessels can take anchorage in the middle of the bay, NE of the chain of reefs, in a depth of 37m, mud.

Sigayan Bay $(7^{\circ}44'N., 123^{\circ}45'E.)$ is separated from Caromata Bay on its W side by Semaruga Point, a well-wooded 40m high promontory. The bay is deep and clear of dangers.

Vessels can take good anchorage near the head of the bay, in a depth of 37m, sand.

The coast between **Sigayan Point** (8°43'N., 123°46'E.), the E entrance point to Sigayan Bay, and Lapitan Point, 13 miles ESE, is steep-to and consists of a number of bold points with scattered bays between them. The land appears mountainous from seaward.

Mount Iniaoan (8°50'N., 123°56'E.), 1,585m high, situated 11 5 miles NE of Sigayan Point, is wooded, conical in shape, and the only prominent peak in this vicinity.

Tuka Bay (7°40'N., 123°58'E.), a small cove situated about 1 mile N of Lapitan Point, is only 0.5 mile in extent.

A settlement stands on a bluff by the E side of the bay.

Port Baras (7°39'N., 124°01'E.), a small cove, lies about 2 miles E of Lapitan Point. The W side of the cove is backed by dense wooded hills. The E side is low and covered with coconut trees. A small island lies about 0.2 mile S of the E entrance point of Port Baras.

Vessels can take anchorage in the middle of the entrance to Port Baras, about 0.3 mile NW of the above small island, in depths of 24 to 31m, mud.

9.21 Malabang (7°36'N., 124°04'E.) (World Port Index No. 59520), a small lumber loading port, lies 4 miles SE of Port Baras.

The port stands 0.75 mile up the Malabang River and two houses, with white roofs, stand on the beach off the town.

Vessels can take anchorage about 0.3 to 0.4 mile S of the two above houses, in depths of 22 to 28m. Vessels loading lumber should anchor off the mouth of the river.

Tetian Bay (7°28'N., 124°08'E.) lies about 9 miles SE of Malabang. The N shore of the bay is low and sandy. The E shore is composed of sandy beaches and rocky points. A river flows into the head of the bay. A small settlement stands on the E side of the mouth of the river.

Vessels can take anchorage in the middle of the bay, in a depth of 35m.

Pinatayan Shoal (7°28'N., 124°06'E.), with a least depth of 2.7m, lies about 2 miles W of Tetian Bay. Buford Reef, with a depth of 3.6m, lies about 4 miles NW of Pinatayan Shoal. A reef, with a depth of 5.8m, lies about 0.3 mile N of Buford Reef.

Lalabugan Bay (7°25'N., 124°09'E.) lies about 3 miles SE of Tetian Bay. Two small coves indent the E and SE shores of the bay, at the head of which are sandy beaches and a few houses. Depths of over 37m are found throughout the bay, but does not afford good anchorage.

9.22 Polloc Harbor (7°23'N., 124°11'E.), entered between Tugapangan Point (7°24'N., 124°09'E.) and Marigabato Point, 4.25 miles SE, is an excellent, well-sheltered harbor, easy to enter, but with considerable depths. It is protected from W winds by Bongo Island.

Polloc Island forms the S side of the entrance to Polloc Harbor and is separated from the shore by Sampintan Creek. The N and E sides of the island are fringed with reefs.

Parang Anchorage is on the E side of Polloc Harbor, W of Parang.

Lalayanga Point is situated on the N side of Parang Anchorage, 0.75 mile WNW of Parang.

Two shoal patches, with depths of 11m and 12.8m, lies 0.2 mile S and 0.15 mile W, respectively, of Lalayanga Point.

The tidal current in Polloc Harbor sets E on the N shore with the flood tide and follows the bend of the coast S and W. The ebb current sets in the reverse direction.

Polloc (7°21'N., 124°13'E.) (World Port Index No. 59500), stands about 1 miles E of Marigabato Point. The main wharf,

aligned in a N to S direction, is 400m long with an alongside depth of 10.5m. Two lighterage wharves, each 67m long, are situated at each end of the main wharf.

The quarantine anchorage is in the center of Polloc Harbor, 1 mile NE of Port Polloc.

Other vessels may anchor S of the quarantine anchor as shown on the chart.

Pilotage is compulsory; however, 24 hours notice of ETA is required.

9.23 Parang (7°22'N., 124°16'E.) (World Port Index No. 59510), a shipping port, lies 2.5 miles ENE of Polloc.

An L-shaped pier extends in a WSW direction from the shore of the port.

Depths of 9.7 to 12.2m were found alongside its SW face and depths of 5.2 to 6.1m along the NE face.

There is good anchorage for large vessels about 0.3 mile W of the pierhead, in depths of 26 to 28m.

Sugut Bay (7°24'N., 124°14'E.) is situated 2 miles NW of Parang. Vessels can take anchorage on the E side of Quidamak Bay, W of Sugut Bay, in a depth 15m.

Bongo Island (7°20'N., 124°02'E.) lies with its NE extremity about 7.75 miles W of Marigabato Point. The island is densely wooded and fringed by a reef. Bongo Shoal, with a depth of 6.4m, lies about 4 miles W of Bongo Island. A reef, with a depth of 7.3m, lies about 1 mile W of Bongo Shoal.

9.24 Panalisan Point (7°16'N., 124°12'E.) lies about 5.3 miles S of Marigabato Point. The coast between these two points is low, intersected by several streams, and fringed by a reef extending about 0.8 mile offshore.

The **Mindanao River** (7°16′N., 124°12′E.), the largest river in Mindanao, flows out close S of Panalisan Point.

The river divides into two arms, 21 miles from its mouths. Large floating masses of grass resembling small islets are found offshore of and in the vicinity of the mouth of the river. The entrance bars at the river mouth are subject to change, especially during freshets.

The N entrance, situated close S of Panalisan Point, is used by small vessels bound for Cotabato. Vessels drawing about 2.5m can usually cross the bar at HW.

The S entrance, used only by local craft, lies close N of Bulusan Point. There is a depth of 0.9m on the bar.

The tidal currents in the river are strong. It is reported that the outgoing current has a rate of 2 knots and the incoming current has a rate of 0.5 knot.

Vessels can anchor 1 mile NW of Panalisan Point, in depths of 9 to 18m. Depths shoal very suddenly in the anchorage area. This anchorage is not recommended for large vessels nor during Southwest Monsoon (May to September).

9.25 Cotabato (7°14'N., 124°15'E.) (World Port Index No. 59490), a river port, stands on the S side of the Mindanao River, about 5 miles from its N entrance. Its importance as a port is declining as its trade is taken over by Polloc Harbor. There is a concrete wharf, 268m long on the S bank of the river, in front of the town. A depth of 2m is maintained at the wharf.

The coast between Bulusan Point and Tapian Point, about 6.5 miles WSW, is wooded to a distance of 1 mile inland. A small village stands about 1 mile S of Bulusan Point.

Mount Cabalata (7°09'N., 124°09'E.), an excellent landmark, stands 3 miles S of Bulusan Point. It is 709m high, shaped like a sugar loaf, and covered with grass.

Tapian Point to Davao Gulf

9.26 Tapian Point (7°09'N., 124°04'E.), the E entrance point of Illana Bay, is low, sandy, and wooded. It is fringed by a reef about 0.1 mile wide.

A reef, with a least depth of 4.6m, lies about 0.8 mile NNW of Tapian Point.

Manangula Point (7°06'N., 124°02'E.), a low point, lies about 3 miles SSW of Tapian Point. A river discharges on the S side of the point. Tenotungan Point lies about 4 miles SSW of Manangula Point. A village stands close S of the point.

Small vessels can take anchorage between a 5.5m shoal and Tenotungan Point, in depths of 18 to 22m, sand.

Logung Point (6°58'N., 123°58'E.) lies about 5 miles SSW of Tenotungan Point. The point rises to a grassy prominent knoll. Mount Binaca, the highest mountain in the coastal range, lies 3.25 miles ESE of Logung Point.

Mount Blik, 15 miles E of Logung Point, is an excellent landmark for approaching the coast.

Resa Bay (6°52'N., 123°58'E.) is situated about 4.5 miles S of Logung Point. The Lapacan River flows into the SE part of the bay.

Vessels can take anchorage about 0.5 mile N of the mouth of the river, in depths of 31 to 42m, sand. The bay is open to the W and is tenable only in fair weather.

Quidapil Point (6°49'N., 123°57'E.), steep and rocky, lies 2.25 miles S of Rasa Bay, and is prominent from N or S. It appears as an island when first seen from these directions. It is formed by a narrow ridge, 107m high, covered with grass and bushes.

Sadam Bay (6°47'N., 123°58'E.) lies about 2.5 miles S of Quidapil Point. The bay is a deep cove bordered by mangroves and coral. Huidobro Reef, with a depth of 5.8m, lies about 2 miles SSW of Sadam Bay. The reef is marked by discolored water.

9.27 Linao Bay (6°46'N., 124°00'E.) is entered between Linao Point and Kalingmomo Point, about 3.75 miles further SE. The shores of the bay consist of sand and hard mud, lined with bushes and trees along the HW mark.

Vessels with local knowledge can take anchorage in the N part of the bay, in depths of 13 to 20m.

This anchorage is reported to be not tenable with strong SW winds.

Lebak Point (6°33'N., 124°02'E.), which rises to an elevation of 104m close within, is situated 10 miles S of Kalingmomo Point. There are no charted offshore dangers between these points.

Port Lebak (6°33'N., 124°03'E.) is entered between Lebak Island, 0.25 mile SSW of Lebak Point and Nara Point, 1.5 miles further SW. The port is sheltered and easy to approach. The shoreline is fringed by a reef.

A river discharges into the S part of the port about 1.5 miles from the entrance. Tubotubo Island stands on a reef, about 0.3 mile from the S shore. A wooden pier projects about 215m from the shore, about 0.5 mile SE of Tubotubo Island.

Alongside depths of 4.6 to 12.8m have been reported. Oil discharge facilities are available at the outer end of the pier. A floating pipeline berth is N of the pier.

A town stands on the N side of Port Lebak. A red and white radio tower marks the town. A light is shown from a position 137m SW of the radio tower.

Vessels can take anchorage E of Tubotubo Island, in depths of 29 to 33m, mud. Vessels may also anchor NE of Lebak Island, in depths of 26 to 29m.

Donauang Shoals (6°30'N., 124°00'E.) are a group of shoals lying parallel to the coast S of Nara Point. All the shoals are steep-to and separated from the mainland by a channel about 0.8 mile wide. Basiauang Bay lies 4 miles S of the entrance to Port Lebak.

Anchorage in this bay is difficult due to its great depths. Donauang Island lies close W of the S entrance point of Basiauang Bay. The island is a conspicuous landmark.

Caution.—Vessels not entering Basiauang Bay or Port Lebak should keep at least 5 miles offshore in order to avoid Donauang Shoals.

9.28 Tuna Bay (6°23'N., 124°04'E.) lies about 4.5 miles SSE of Basiauang Bay. The bay is open to the S, and a heavy swell sets in during the Southwest Monsoon. The W shore of the bay is fringed by a coral reef. Vessels can take anchorage near the head of Tuna Bay, in depths of from 33 to 37m, protected from all but S winds.

Malatuna Point (6°19'N., 124°06'E.) lies about 4.5 miles SE of Tuna Bay. The point is easily identified from NW or SE by an islet lying close off it. Taytayan Island, wooded at its summit, lies close offshore, about 2.8 miles SE of Malatuna Point. The channel between the island and the mainland is shallow.

Vessels with local knowledge can take anchorage in the channel between the reefs and the coast, in depths of 28 to 37m

Caution.—A chain of reefs lies from 0.5 mile to 2 miles offshore, between Taytayan Island and Pola Point, about 11 miles to the SW. The channels between the reefs, and between the reefs and the mainland are deep and clear of dangers.

Caution should be exercised as the reefs are difficult to distinguish due to the discolored water from the rivers in the vicinity.

9.29 Milbuk (6°09'N., 124°16'E.), a lumber loading port, lies about 1 mile ENE of Pola Point. The approach to the harbor is encumbered by several reefs, some of which dry. Three buoys marking the channel into the anchorage were reported missing.

A tidal current, with a rate of 2 to 4 knots, was reported as setting in an E direction across the entrance during the flood tide. A W set, of lesser strength, was reported during the ebb tide.

There are no pilots at the port, but a coastal pilot can be obtained at Zamboanga.

A launch meets the vessel in the entrance and indicates the anchorage.

Vessels with local knowledge can take anchorage about 137m SSE of the pierhead, in a depth of 12.8m. The harbor is small, but offers good shelter from N winds.

Maculi Point (6°07'N., 124°20'E.) lies about 4 miles SE of Milbuk. The point is low, broad, and rounded. A small river discharges near the E side of the point.

Vessels can take anchorage about 2 miles E of the river entrance, 0.25 mile offshore, in depths of 26 to 37m.

Pinol Point (6°06'N., 124°23'E.), with a prominent yellow cliff, lies 3.25 miles SE of Maculi Point. Pagang Point, a sharp rocky point, lies about 9 miles SE of Pinol Point. Bacud Point is composed of rocky cliffs and lies about 6 miles ESE of Pagang Point. Bacud Reef, with a least depth of 0.9m, lies about 4 miles SE of Bacud Point.

9.30 Kiamba (5°59'N., 124°37'E.), a small town, lies about 1 mile E of Bacud Point. A concrete pier, with a wooden extension, is situated close E of the town. Coastal vessels use the anchorage S of the town.

Kling, a small village, lies 6.5 miles ESE of Bacud Point. Bual Point, low and wooded, lies about 8 miles SE of Kling. A beacon stands on the shore 2 miles ESE of Bual Point. It is used as a guide when anchoring.

Matil Point (5°52'N., 124°55'E.), low and flat, lies about 6.5 miles ESE of Bual Point. The point consists of coral and sand. Taliak Point, about 6.5 miles E of Matil Point, is rounded with low hills in the interior. A chain of shoals lie S of Taliak Point and can best be seen on the chart.

A conspicuous cliff, 15m high, is situated 2 miles E of Taliak Point.

Tampuan Point (5°52'N., 125°05'E.), about 1.8 miles NE of the cliff, is marked by prominent vertical cliffs that are 11m high.

Sarangani Bay

9.31 Sarangani Bay (6°00'N., 125°12'E.) is entered between Tampuan Point and Sumbang Point, about 16 miles ESE. The hills on the E side of the bay are heavily wooded. At the head of the bay the land is flat, with high hills and mountains in the distance.

Anchorage.—The bay provides poor anchorage in the various small bays due to the great depths. The quarantine anchorage and the recommended anchorage lie near the head of Sarangani Bay, in positions best seen on chart. Anchorage may also be found off the mouth of the Siloway River. These anchorages are located near the edge of the deep water shelf and local area knowledge is recommended for anchoring. The W shore of the bay The W shore of the bay trends 14 miles NNE from Tampuan Point to Makar and is generally straight and regular. There are numerous fish traps moored in the bay.

9.32 Makar (6°06'N., 125°09'E.), a small village, is situated at the NW side of the head of the bay. Dole Wharf extends 0.1 mile NE from a position about 0.4 mile SSE of Makar.

The wharf has a berthing space of 139m, is between 12 to 18m wide, and has depths of 11.5m alongside.

A light is shown from Dole Wharf. Vessels berth on the SE side of the wharf. Vessels berth port side-to with a N wind and

starboard side-to with a S wind. Vessels may berth day or night. The tidal current can at times run strongly across the end of the wharf.

Makar Wharf lies on the NW coast of the cove about 0.5 mile N of Dole Wharf. The wharf which is government owned, provides a berth 561m long and 20m wide.

There are depths of 8.5 to 11m alongside. In 1993, work was in progress off the NE end of the berth.

Pilotage is compulsory. The pilot boards 1 mile from Dole Wharf. Vessels should radio ETA to Makar through Manila Coast Radio Station.

Anchorage is prohibited in an area about 0.5 mile off Makar.

9.33 General Santos (Buayan City) (Dadiangas) (6°07'N., 125°11'E.) (World Port Index No. 59485) lies about 1.5 miles NE of Makar. City Hall, two church spires, and a radio tower stand about 1.5 miles NE of the pier in Makar.

Three oil tanks stand on the coast about 0.8 mile SE of the City Hall building.

Pilotage is compulsory. Pilots board 1 mile from the Dole Wharf in Makar. Vessels should send ETA through Manila Coast Radio. Vessels are berthed night and day.

Vessels can take anchorage about 0.3 mile offshore, S of a large green warehouse, in depths of 18 to 37m. The quarantine anchorage is situated about 0.8 mile ESE of this anchorage.

The E side of Sarangani Bay is irregular and indented by several coves and bights.

Lago Cove (6°04'N., 125°16'E.) lies about 6.5 miles ESE of General Santos. The cove has limited anchorage in a depth of 37m, close inshore.

The depth drops sharply from the beach and this restricts the anchorage.

Sapu Bay (5°55'N., 125°16'E.) lies about 8.5 miles S of Lago Cove. The bay offers limited anchorage, protected from S and SW winds, in depths of 37 to 48m, off the mouth of the Big Sapu River which discharges into the head of the bay.

Canalasan Cove (5°50'N., 125°12'E.), entered between Sumbang Point and Letue Point, about 1.5 miles E, is the best harbor in the area during the Southwest Monsoon. The S and E shores are fringed by a reef and a narrow strip of mangroves.

Glan (5°50'N., 125°12'E.) (World Port Index No. 59480), a small town, is situated at the head of Canalasan Cove. The outer end of a concrete pier is in ruins.

Vessels can take anchorage about 0.1 mile NW of the end of the pier, in depths of 16 to 18m, mud.

Sumbang Point to the Sarangani Islands

9.34 Lefa Point (5°47'N., 125°11'E.) lies about 3.75 miles S of Sumbang Point. The point is steep and rocky. A shoal, with a depth of 8.7m, lies about 1.3 miles SE of the point. Sagby Point, about 4 miles SE of Lefa Point, is high, rocky, and marked by a prominent red cliff.

Tinaca Point (5°33'N., 125°20'E.) lies about 12 miles SSE of Sagby Point. The point forms the S extremity of Mindanao. The point consists of two headlands connected by a beach and has the appearance of a volcanic crater. A light is shown on the point.

Balangonan Cove (5°34'N., 125°21'E.) lies 2 miles ENE of Tinaca Point and affords poor anchorage. Malavinuan Cove, 1

mile farther E, provides sheltered anchorage during the Northeast Monsoon (October to March), in depths from 22 to 29m.

The **Sarangani Islands** (5°26'N., 125°27'E.) consists of two large wooded islands, and a small wooded cay, lying 5.5 miles SE of Bukid Point and 9.75 miles S of Tinaca Point.

Sarangani Strait, separating the two islands from Mindanao, is deep and clear of dangers. Tidal current in the strait set WSW and ENE.

Balut Island (5°25'N., 125°23'E.), the largest of the Sarangani Islands, has a volcano near its center, which at times emits smoke. The island is fringed by a reef. A small islet lies close off the SW point of the island.

There is anchorage for vessels with local knowledge from 0.5 to 1.5 miles S and SE of Lajan Point, the NE point of the island, in depths from 9 to 27m, with good shelter from SW or NE storms, but the anchorage is encumbered with shoals.

Sarangani Island (5°27'N., 125°28'E.) lies about 2 miles NE of Balut Island. The island consists of several rolling hills and is fringed by a reef on its NE and SW sides.

Port Patuco (5°28'N., 125°28'E.), an inlet which affords good shelter for small craft, lies on the W side of Sarangani Island. The channel into the port is narrow and tortuous.

At the head of the port is an anchorage area about 0.1 mile wide, with depths of 6 to 9m.

Port Tumanao (5°27'N., 125°28'E.), about 1.3 miles S of Port Patuco, is the largest inlet on the W coast of Sarangani Island. The port is deep except near its shores. Vessels anchor in the middle or near the head of the port, in depths of 28 to 51m, mud.

9.35 Olanivan Island (5°31'N., 125°29'E.) lies about 1.3 miles N of Sarangani Island. The island is fringed by a reef. There is a deep channel between the fringing reef of the island and the reef off the NE side of Sarangani Island.

The tidal currents are strong in this channel.

Bukid Point (5°34'N., 125°25'E.), on the SE coast of Mindanao, lies 5.5 miles NW of Olanivan Island. The point is fringed by a narrow reef. The point may be approached to within 0.5 mile.

Butulan Cove (5°38'N., 125°27'E.), about 0.5 mile wide and 0.25 mile long, lies about 3.75 miles NNE of Bukid Point. The cove is deep but affected by ground swells. Small vessels anchor about 0.1 mile NE of the mouth of a small stream at the head of the cove.

Banos Point (5°55'N., 125°40'E.), steep, high, and lying about 25 miles NE of Bukid Point, is formed by a prominent peaked ridge.

There is anchorage, 0.5 mile offshore S of the point and 1 mile N of the point, in depths of 37m. There are strong rip tides offshore.

Lawayon Point (6°02'N., 125°42'E.) is formed by a conical hill and lies about 6.7 miles NNE of Banos Point.

The point is conspicuous and makes a good landmark and the coast N of the point is steep and rocky.

Davao Gulf (6°40'N., 125°50'E.)

9.36 Calian Point (6°07'N., 125°43'E.), lying 5.5 miles N of Lawayon Point, is the bold and rocky W entrance point of

Davao Gulf. The point is a conspicuous landmark and is marked by streaks of bare cliff. It rises to a height of 379m from the narrow valleys on its N and S sides.

Lapuan (6°08'N., 125°42'E.), a small village with a dock, is situated about 1.8 miles N of Calian Point. The dock is small and in poor condition.

Lawa is a small village lying about 3 miles N of Lapuan. There is a basin which is reportedly used by small boats. The lights from the village are conspicuous.

Malita (6°24'N., 125°37'E.) lies about 13.5 miles NNW of Lawa. A small pier, in ruins, is situated on the point of the same name. Vessels anchor SE of the pier, in 11 to 15m. Lacaron, with a small pier, lies about 3 miles NW of Malita.

Tubalan Head (6°30'N., 125°35'E.) lies about 3 miles N of Lacaron. The head is a conspicuous landmark. A reef extends 0.2 mile NW of the N extremity of the headland.

Port Tubalan lies close W of Tubalan Head. There is deep water in the middle of the port.

The best anchorage is on the W side of the port, 0.5 mile offshore, in depths of 37 to 40m, mud.

Sigarin Point (6°32'N., 125°33'E.) lies about 3.25 miles NW of Tubalan Head. The point consists of a gentle slope notched by five hills. Foul ground extends about 0.3 mile from the point. The point forms the E entrance point of Basiauan Bay.

9.37 Basiauan Bay (6°32'N., 125°31'E.) is divided into two coves by a point on the S shore of the bay.

The bay is deep and clear of dangers, except for the fringing shore reef, which extends from the SW cove. A small village stands at the head of the SW cove.

Vessels anchor NE of the village, in 26 to 29m. This anchorage is sheltered from all but N and NNE winds.

Monkiaua Bay (6°34'N., 125°30'E.) lies close NW of Basiauan Bay. The bay is deep and clear, but seldom used. Kulungan Bay lies close NW of Monkiaua Bay. There are numerous shoals in the bay, some awash at LW.

Colapsin Point (6°38'N., 125°26'E.) lies about 5 miles NW of Kulungan Bay. The point is the NE extremity of the peninsula that forms the NE shore of Malalag Bay. A light is shown from the point. A 6.4m shoal lies about 0.8 mile NNE of the point.

Mount Piapi (6°39'N., 125°23'E.), a conspicuous landmark, lies near the beach on the W side of the entrance to Malalag Bay. Piapi Reef, drying to 0.3m at LW, lies about 1 mile offshore, E of Mount Piapi. A lighted buoy marks the reef.

Malalag Bay (6°37'N., 125°24'E.) is entered between Colapsin Point and Piapi Reef buoy. The N part of the W shore is fringed by mangroves and has shoal water extending from 0.5 to 0.75 mile from the shore.

Navigable width of the channel is 1 mile. Bolton Reef, with a depth of 1m, divides the entrance into two deep channels. A beacon marks the reef. A small village of the same name stands on the S shore of the bay.

A river discharges close W of the village. A concrete pier 30m long, used for loading molasses and handling general cargo, is situated SE of the village. The controlling depth is reported to be 10m. A light is shown on the E side of the bay.

Vessels can anchor, in 18.4m, about 0.3 mile N of the mouth of the river. An anchorage for large vessels is situated NE of

the pier, in 29 to 35m, mud. Anchorage is also available about 1 mile SE of the light.

The **Padada River** (6°42'N., 125°22'E.), navigable by small boats, discharges about 3 miles N of Mount Piapi.

A small town of the same name stands on the N bank of the river, about 0.5 mile inland.

Digos Point (6°45′N., 125°23′E.), low, flat, wooded, fringed with mangroves, and fairly prominent from the N or S lies about 3.5 miles NNE of the mouth of the Padada River. A reef, which dries at LW, extends about 0.3 mile from the point. A channel separates the fringing shore reef from the offshore reefs.

Digos Reefs (6°45'N., 125°24'E.) are a group of shoals and detached reefs extending about 1.5 miles from the shore. Part of the reefs bare at LW. There are several channels between the reefs, but these should not be used without local knowledge.

Digos Outer Reef (6°44′N., 125°24′E.), which dries, lies about 1.8 miles SSE of Digos Point. The reef is steep-to on its E and S sides and foul on its W side. A number of shoals lie up to 0.5 mile S and W of the reef. Digos Islet, a white, coral, sand cay lies 1 mile S of Digos Point.

Digos (6°45′N., 125°23′E.), a town on the N bank of the river with the same name, lies about 0.5 mile inland. A conspicuous warehouse stands on the beach, close S of the mouth of the river.

There is a concrete pier, 27m in length, for domestic traffic. The controlling depth is reported to be 5m.

Vessels anchor SW of Digos Islet, in depths of 22 to 27m, with the warehouse bearing 317°. Vessels also anchor NW of the islet, in depths of 20 to 22m, with the warehouse bearing 249°. Small vessels anchor between the islet and the warehouse on the beach.

9.38 Tagabuli Bay (6°48'N., 125°23'E.) lies 2.5 miles N of Digos Point. The bay, about 1 mile long, 0.25 mile wide, is a deep inlet. The sides of the entrance are low, making the bay difficult to identify. A causeway with a T-shaped extension is situated on the S shore near the head of the bay. It is only used by small craft.

There is anchorage in the middle of the bay, in depths of 29 to 37m. There is a width of 0.2 mile between the reefs in the anchorage. The anchorage is protected from all winds except ESE.

Santa Cruz Point (6°50'N., 125°25'E.), 2.5 miles NNE of Tagabuli Bay, is low and wooded. A barrier reef extends about 0.1 mile offshore. The town of Santa Cruz stands on the point. A large warehouse is a conspicuous landmark. Two patches of tall grass on the hills lie 0.5 mile inland and 1.5 miles N of Santa Cruz. These patches can be seen for a considerable distance offshore.

There is anchorage SE of the warehouse, about 0.2 mile off the beach, in 13 to 37m. A well-protected anchorage is found in the cove 1 mile N of Santa Cruz Point, in depths of from 31 to 33m, mud. This anchorage is protected from all winds except those from the SE and ESE.

Malusi Point (6°52'N., 125°27'E.) lies 3 miles NE of Santa Cruz Point. A prominent white tank stands on the point. Astorga, a small village, lies 1.75 miles N of Malusi Point. A number of detached shoals encumber the bight fronting Astorga.

Tagulaya Point (6°55'N., 125°29'E.), low and wooded, lies 2.25 miles NE of Astorga. A 7.4m shoal lies 1.5 miles NNE of the point.

Darong, a small village, lies about 1 mile WNW of Tagulaya Point. A large conspicuous house is visible for a distance of 8 to 10 miles offshore.

9.39 Daliao (7°01'N., 125°30'E.) (World Port Index No. 59450), a coastal village, lies 5 miles NNE of Tagulaya Point. Numerous houses are visible and a large warehouse near the beach is conspicuous.

Vessels anchor ESE of a ruined pier, in depths of 13 to 18m, mud

Daliao Reefs consists of two coral reefs lying about 0.5 mile SSE of Daliao.

Talomo Bay (7°03'N., 125°33'E.) is deep and clear of dangers and lies about 3.5 miles NE of Daliao.

Talomo (7°03'N., 125°33'E.) (World Port Index No. 59440), a small town, is situated at the head of the bay. A pier at Talomo is reported to be in ruins.

Vessels anchor SW of the pier, in depths of 18 to 37m, mud. This anchorage is exposed to the Southwest Monsoon.

Dumalag Point (7°02'N., 125°34'E.), low and wooded, is the S extremity of Dumalag Island. The island is separated from the mainland by a narrow passage which is used by small boats. A beacon marks a rocky patch close SE of Dumalag Point.

9.40 Davao (7°04'N., 125°37'E.) (World Port Index No. 59430), a first port of entry, stands on the NW shore of Davao Gulf, at the S entrance of Pakiputan Strait.

The town is the leading port for the export of Manila hemp.

Wind—Weather.—The port is protected on all sides, except the S. There is no rainy season and weather conditions throughout the year do not vary greatly. The port is normally outside the typhoon belt.

Tides—Currents.—The port has a semi-diurnal type of tide. The current off the port floods N and ebbs S. It sweeps at right angles with the N and S faces of the pier at a maximum rate of 2 knots.

Depths—Limitations.—Berthing can be done day or night. The length and beam of vessels do not pose a problem in entering the approaches to Davao; however, limiting dimensions at the various piers are given in the accompanying table.

Vessels up to 181m in length, with a draft of less than 9m, can be accommodated.

Davao Port Facilities			
Pier	Length	Draft	Remarks
Santa Ana			
North South	104m 88m	4m	Four berths General cargo
Sasa Wharf	920m	10.6m	General cargo and ro-ro
Shell Oil	42m	10.4m	T-shaped pet- roleum pier
Mac-Leod	_	9.3m	Petroleum
Stanvac	_	9.7m	Petroleum
Caltex I	66m	7.0m	Petroleum
Caltex II	55m	9.7m	Petroleum
Tefasco	400m	10.0m	General cargo
MCP	101m	8.8m	General cargo

Aspect.—The buildings, warehouses, and pier are conspicuous for a distance of 10 miles from the S. A high hill, 2 miles W of the port is prominent.

A light is shown from the S side of the root of the Santa Ana Pier.

A white stone monument stands close W of the light and is often mistaken for the light.

Pilotage.—Pilotage is compulsory. Prior notice of 36 hours must be given. The pilot boards at 7°02'N, 125°39'E. The Port Authority and pilots use VHF channel 16.

Anchorage.—Vessels can anchor, in a depth of 22m, mud, about 0.3 mile SE or NE of the head of Santa Ana pier, or up to 1 mile from the pier, in depths of 37m.

Anchorages are well protected and outside the typhoon belt.

Davao Gulf Islands

9.41 Samal Island (7°02'N., 125°45'E.), lying near the head of Davao Gulf, is 18.5 miles long and 8 miles wide. It is sparsely inhabited on its W coast. Samal, on the W side of the island, is situated at the head of a small bay. The town has a stone pier, used as a boat landing.

Pohul Point (7°04'N., 125°41'E.) and the general coast of Samal Island provide poor radar images.

Malipano Anchorage (7°00'N., 125°43'E.) lies about 4 miles SSE of Samal. The anchorage is used chiefly by small craft. A pearl farm, marked by four buoys, lies in the anchorage.

Cruz Islands (7°11'N., 125°46'E.), consisting of Big Cruz Island and Little Cruz Island, lie off the NE coast of Samal Island. The islands are densely wooded, but a few houses can be seen from offshore. The channel between the two islands is about 0.8 mile wide and mostly foul.

Talikud Island (6°56'N., 125°42'E.) lies off the SW coast of Samal Island. A light is shown from a round concrete tower, 10m high, standing near the SW extremity of the island. Talikud Strait, separating the two islands, is a deep navigable channel about 0.8 mile wide.

Pakiputan Strait

9.42 Pakiputan Strait (7°07'N., 125°40'E.), separating Samal Island from the NW shore of Davao Gulf, has a least width of 0.5 mile and a deep fairway, except for a 17.4m patch close within its N entrance, nearly 1 mile WNW of Arboles Island.

Several rocky, detached shoals lie off the W side of the S entrance to the strait. The current in the strait has a rate of 2.5 knots and occasionally sets S both with a rising and falling tide. This occurs after strong winds have backed up the water in the N end.

Arboles Island (7°10'N., 125°41'E.) lies on the NE side of Pakiputan Strait. The entire island is covered at HW. A narrow channel, with depths of 11 to 16.5m and about 0.1 mile wide, separates the island from Samal Island.

The most dangerous shoal in the N part of the strait consists of several drying heads lying 1.5 miles S of Arboles Island.

Vessels can anchor about 1 mile NNE of Linao Point, where there are moderate depths close to the narrow fringing reef of Samal Island. Anchorage may also be found 1 mile SW of Linao Point, in depths of 11 to 14m.

Head of Davao Gulf

9.43 Liang (Ilang) (7°11'N., 125°39'E.), a village, lies about 2 miles NW of Arboles Island. There is a 135m long conveyor pier and a T-shaped pier with a berthing head about 55m long.

The controlling depths are 8.8m and 10m alongside these piers. There is a chimney here.

Tibungko (7°12′N., 125°39′E.) lies about 1 mile N of Liang. A conspicuous schoolhouse is reported to stand near the beach. Fish traps mark some of the shoals off the beach.

Vessels anchor E of a ruined pier, about 0.5 mile offshore, in depths of 22 to 27m. Small boats can anchor closer to the beach, S of the pier.

The **Bunawan River** (7°14'N., 125°39'E.), discharging about 2.25 miles N of Tibungko, can be used by small boats. A village of the same name stands about 0.5 mile inland. Vessels can anchor E of a ruined pier, in depths of 15 to 27m.

Tambungon (7°15'N., 125°40'E.) (World Port Index No. 59420), a lumber loading port, is situated about 1.5 miles NE of Bunawan. A prominent gray building stands at the root of a stone mole and pier. Pilings stand where the outer end of the pier formerly stood.

Pilotage is compulsory. There is good anchorage, 0.5 mile S of the pier, in depths of 18 to 37m.

Panabo (Kaganjuan) (7°18'N., 125°42'E.) lies about 4 miles NNE of Tambungon. A T-headed pier, with a berthing face 118m long, extends SE from the shore. The controlling depth was reported to be 12m alongside the berthing face. The T-head is partly covered with a roof. It was reported that the length of the berth was about 258m.

A government owned pier is situated close N of the above pier.

It was reported that this pier had been enlarged and had two berths. The S berth faces E and is about 150m in length. The N berth faces NE and is about 180m in length.

The pier is of concrete construction and is reported to be well fendered. The controlling depth alongside was reported to be 12m.

The **Tunganay River** (7°19'N., 125°44'E.) discharges about 0.1 mile W of the Tagum River. Large vessels can anchor ESE of the mouth of the river, in depths of 27 to 37m.

This anchorage is poor and many anchors are reported to have been lost in this vicinity.

The **Madaum River** $(7^{\circ}22^{\circ}N., 125^{\circ}49^{\circ}E.)$ lies 3.5 miles ENE of the mouth of the Tunganay River. Depth over the bar is 0.6m at LW. An L-shaped pier, 30m wide and 300m long, stands 0.4 mile NE of the river entrance. There are two berths with a controlling depth alongside of about 13m.

Maco (Maca) (7°22'N., 125°51'E.) lies about 2.5 miles E of the mouth of the Madaum River.

The sawmill in town is conspicuous. A small pier close to the sawmill dries at LW.

There is anchorage offshore, in a depth of 91m, good holding ground, mud, with the sawmill bearing 057° and the white plantation house near the mouth of the Madaum River bearing 288°.

9.44 Pandasan Island (7°17'N., 125°50'E.) lies about 4 miles S of Maco. The island is separated from the mainland by a narrow channel, almost blocked by a reef at its N end.

A fair anchorage exists 0.75 mile N of the island, in depths of 22 to 27m, or S of the island, in depths of 13 to 37m.

Kopia Island (7°17′N., 125°50′E.) is separated from Pandasan Island and the mainland by a channel about 0.3 mile wide and a village stands on the E coast of the island.

There is good anchorage S of the island, in depths of 13 to 37m.

Magnaga Bay (7°10'N., 125°53'E.) lies about 7 miles SSE of Kopia Island. The bay is clear of dangers and easy to approach. A village stands at the head of the bay.

Pangasinan Point, low and sandy, lies about 2.8 miles S of Magnaga Bay. Several houses on the point are conspicuous. Detached shoals lie 0.5 mile WNW of the point.

Piso Point (7°03'N., 125°57'E.), steep, bold, and marked by a brown scar, lies 5.5 miles SE of Pangasinan Point. A small bight lies N of the point. A village is situated on the N shore of the bight.

Vessels anchor in the bight, in depths of 28m, mud.

Mapanga Bay (7°01'N., 125°59'E.) is situated about 2 miles SE of Piso Point. The bay is encumbered by numerous shoals of various depths and by reefs awash.

Mapanga Reef, awash, lies about 1.5 miles SSE of Piso Point.

Maputi Creek (7°01'N., 125°59'E.) discharges into the head of a small bight and lies about 3 miles SE of Piso Point. Vessels anchor about 0.5 mile W of the mouth of the creek in 20m, mud.

Arena Point (6°56'N., 125°59'E.), low and flat, is situated about 5 miles S of Maputi Creek. The point is fringed by a sandy beach. Mount Galintan, a conspicuous landmark, lies about 6 miles ENE of Arena Point.

9.45 Sumlug Point (6°52'N., 126°01'E.) is low and sandy and can be identified by the many houses. A 1m shoal patch lies about 1.5 miles WSW of the point. Cuabo Bay is entered between Sumlug Point and Bato Point, about 4 miles SE. The bay is encumbered by shoals and reefs.

Bitaogan Point (6°46′N., 126°04′E.) lies 3 miles S of Bato Point. The point is low and sparsely wooded. Talisay Reef, partly bare at LW, lies about 3 miles WSW of Bitaogan Point. Burias Reef lies 2.25 miles S of Talisay Reef. The N side of the reef bares at LW.

Duas Point (6°44'N., 126°05'E.), consisting of bare vertical cliffs 15 to 30m high, lies about 2.5 miles SSE of Bitaogan Point.

There is anchorage off the point, in a depth of 42m, mud. A prominent hill stands 1 mile S.

Baksal Cove (6°41'N., 126°05'E.) lies 2.5 miles S of Duas Point. The middle of the cove and the approaches are encumbered by several shoals with depths of 7.4 to 9.2m. A small rock lies near the head of the cove.

Bais Point (6°40'N., 126°04'E.), about 4.25 miles SSW of Duas Point, is a low point with a sandy beach. Governor Generoso, a town, lies close S of the sandy beach.

The town has a number of conspicuous buildings and a church. Sigaboy Island, with steep cliffs, lies 2 miles S of Bais Point.

Borot Cove (6°36'N., 126°05'E.) lies about 2.5 miles SSE of Sigaboy Island. The entrance points to the cove are steep rocky bluffs. Shoal water extends 0.2 mile N from the S entrance point.

Anchorage in the cove is restricted. Borot Reef lies about 0.5 mile W of Borot Cove. The reef is partly awash at LW.

9.46 Monserat (6°36'N., 126°05'E.) (World Port Index No. 59410) is the site of an estate and lies at the head of Borot Cove. Several buildings are conspicuous from offshore. A small pier has a reported depth of 5.5m alongside.

Vessels can anchor in the entrance to the cove, in a depth of about 49m, good holding ground.

Mount Bilbogan (6°34'N., 126°06'E.) stands about 2 miles SSE of Monserat. This landmark is very conspicuous when seen from N or S and shows three small peaks.

When seen from the W it appears as a sharp peak with a regular outline.

Padada Point (6°32'N., 126°05'E.), low, flat, and rounded, is fairly prominent and lies about 4 miles S of Borot Cove. A small village lies about 1.5 miles SSE of the point.

Nangan Bay (6°27'N., 126°07'E.) is entered 4 miles SSE of Padada Point. A drying reef extends 0.25 mile W from the N entrance point.

With the exception of this reef, the bay is clear and easy to approach.

Vessels anchor about 0.1 to 0.2 mile from the E shore of the bay, in 40 to 51m, mud.

Abag Bay (6°25'N., 126°08'E.) lies about 2.5 miles SE of Nangan Bay. The bay is mostly deep and free of dangers. A village situated at the head of the bay. A second village lies 1 mile farther S.

9.47 Kaganuhan Point (6°23'N., 126°08'E.) forms the S side of Tagabibi Bay. When seen from the NW, the point has six hills rising to the E. The point is fringed by a reef.

Tagbanao Cove, a small bight about 0.5 mile in extent, lies 2 miles SE of Kaganuhan Point. Vessels anchor in the middle of the cove, in 33 to 37m, mud.

Lakga Point (6°22'N., 126°10'E.), with several houses visible from seaward, lies about 0.5 mile S of Tagbanao Cove. A small village lies SE of the point. Vessels anchor SE of the point, about 0.1 mile offshore, in a depth of 37m.

Lavigan Anchorage (6°18'N., 126°11'E.) lies about 3.5 miles SSE of Lakga Point. The anchorage is a narrow inlet extending about 0.3 mile in an E direction.

The navigable width of the channel is 46m, with a depth of 14.7m. The anchorage is mainly for small boats.

Cape San Agustin (6°16'N., 126°11'E.), the E entrance point of Davao Gulf, is the S extremity of a long peninsula which forms the E side of Davao Gulf. A light is shown from the cape on a concrete tower, 10m high.

The currents off the cape are strong and appear to set in a SW direction. The average rate approaches 2 knots but rates of 3 to 4 knots have been encountered.

San Agustin Reef (6°15'N., 126°11'E.), with a least depth of 2.7m, lies about 0.3 mile S of Cape San Agustin. The reef breaks heavily at times. There is a channel between the reef and the cape and is used by small craft.

Cape San Agustin to Cauit Point

9.48 Luban Island (6°26'N., 126°13'E.) lies about 10 miles NNE of Cape San Agustin.

The island is connected to the mainland by a drying reef. A large rock lies close off the E side of the island. A small village stands on the mainland W of the island.

Between Cape San Agustin and Tumago Point, about 30 miles NW, the coast is high, rugged, and steep. There are no off-lying dangers and deep water lies close to the coast. There are no good anchorages in this part of the coast.

9.49 Pujada Bay (6°51'N., 126°14'E.) is entered between Tumago Point and Lamigan Point, 6.5 miles NE. The Guanguan Peninsula forms the E side of the bay, which is fringed by a narrow reef. The W side of the bay is steep-to and densely wooded. The head of the bay is fringed by reefs and shoals to a distance of 0.5 mile.

Pujada Island (6°47′N., 126°16′E.) lies near the middle of the entrance to the bay. It divides the entrance into two wide and deep channels. The N end of the island is wooded and the S end is covered with bushes and trees.

The N and W sides of the island are steep-to. Reefs and shoals extend up to 0.35 mile off its E side. Pujada Island Light is shown from a structure at the SE end of the island.

Two sandy islets lie 0.75 mile and 1 mile SE of the island. They are surrounded by drying reefs. A narrow and foul channel separates the two islets. The channel between the N islet and Pujada Island is about 0.3 mile wide, with a least depth of 5.8m in the fairway.

Uanivan Island (6°50'N., 126°16'E.), high and wooded, is situated on the E side of Pujada Bay. The island and Guanguan Peninsula are connected by a rocky ledge, with a least depth of 9.2m. A drying reef extends 0.25 mile SE from the island.

9.50 Mati (6°57'N., 126°13'E.) (World Port Index No. 59400), the most important town in the area, lies at the head of Pujada Bay.

Depths—Limitations.—The town has an L-shaped pier, 40m long, with a controlling depth of 6.7m. A light is shown from the pier.

Interco Berth, a T-headed pier, used for loading coconut oil, lies 1.75 miles SE of Mati. The berth is approached from the S between two reefs.

It consists of two mooring dolphins, in line 095°-275°, alongside an artificial island which is connected to the shore by a causeway.

A refining plant, with prominent tanks, is at the root of the causeway. Vessels with drafts up to 14m and about 180m loa can be accepted at this berth.

It is reported that loading of expeller pellets is by means of a fixed loading arm and that, when warping the vessel to change holds for loading, attention should be given to the existence of a reef lying W of the berth, and to the shallow water lying E.

Pilotage.—The pilot for berthing comes from Davao and adequate notice of ETA is required. The pilot is reported to board about 1.5 miles S of the berth from a small yellow painted boat.

Fuel can be obtained by barge from Davao.

Anchorage.—Vessels can anchor, in 28 to 33m, about 0.3 mile off the above pier. Small vessels can anchor in Balete Bay, in depths of 30 to 37m, near the entrance, or near the head of Balete Bay, in 14.7m, mud.

9.51 Mayo Bay (6°55'N., 126°22'E.) is entered between Lamigan Point and Tugubun Point, 13 miles NE.

The N shore of the bay is high, very rugged, and steep-to. Three small towns lie on the N shore of the bay. Great depths are found throughout Mayo Bay. The tidal currents in the bay are weak, but a constant S current of about 2.3 knots is felt offshore at the entrance points.

Mayo Bay is protected from N winds, but is not recommended as an anchorage as very deep water lies close offshore.

Fair weather anchorage is sometimes taken off the three towns on the N coast.

Casauman Point (7°09'N., 126°32'E.) lies about 10 miles NNE of Tugubun Point. There are five bays, all open to the E and S, between these two points. There are frequently heavy tide rips off the point. The Casauman River, on which small boats can enter at HW, lies 1.5 miles NNW of the point.

Manay Bay (7°12'N., 126°33'E.) is situated about 3 miles NE of Casauman Point. The town of Manay stands at the head of the bay along with the town of Zaragosa.

The bay provides protected anchorage from all winds except from S and E.

Caraga Bay (7°18'N., 126°34'E.) lies about 6.7 miles NNE of Manay Bay. Alisud Point, the N entrance point, is rocky and steep-to and is formed by low and bare cliffs.

Pusan Point, the S entrance point, is low, rocky, and rounded. Heavy rips are found off this point and apparently caused by the constant S current.

Caraga (7°20'N., 126°34'E.) (World Port Index No. 59390) stands on the cliff bordering Alisud Point. The town church is conspicuous.

Vessels can anchor close to the shore S of Caraga. Vessels also anchor off Santiago, in the SW corner of the bay, in E and SW winds.

The anchorage at Caraga is used only during fair weather.

9.52 Baculin Bay (7°25'N., 126°34'E.) lies about 6 miles N of Alisud Point. The N and S shores of the bay are high and rocky while the W shore is reported to be low and sandy. Baculin, a small town, stands on the N shore of the bay.

Vessels anchor, in 13 to 18m, about 0.5 mile offshore, 2 miles WSW of Baculin Point.

Baganga Bay (7°35'N., 126°34'E.), 8.75 miles N of Baculin Point, is entered between Lakud Point and **Lambajon Point** (7°36'N., 126°35'E.), about 2.2 miles NNW. A river flows into the S end of the bay. A town stands on the S bank of the river. Some of the town buildings are visible from seaward. The bay is deep and clear of dangers in its middle part.

There is anchorage in the bay, in a depth of 12.9m, about 0.3 mile offshore and 0.5 mile W of Lambajon Point.

Vessels also anchor, in 9m, protected from S and SE winds, in the SW part of the bay.

San Victor Island (7°40'N., 126°34'E.), about 4 miles NNW of Lambajon Point, is a small, low islet with a bushy top and the island is surrounded by foul ground.

An extensive area encumbered with shoals lies within 1.25 miles NE, E, and S of the island. The sea breaks heavily at all times on three drying patches in this area.

Bangai Point (7°44'N., 126°34'E.) lies about 4 miles N of San Victor Island. The point is low and rocky. The coast to the

SW of the point is fringed by a reef which dries in places. Two prominent islands stand on the reef.

9.53 Cateel Bay (8°50'N., 126°27'E.), entered between Bangai Point and Catarman Point, about 17 miles NW, is a large open roadstead. The bay is free of dangers outside of 1.5 miles from shore.

The villages of San Roque and Boston are situated in the NW part of the bay. Cateel, a town on the S shore of the bay, lies about 7 miles SE of Boston. Several buildings and a church can be seen from offshore.

Vessels can anchor off the village of Boston, in depths of 9.1 to 12.9m. Vessels calling at Cateel usually anchor, in 11 to 14.7m, about 0.5 mile N of the village of Magdalena, which lies about 2 miles NW of Cateel. There is a prominent warehouse in the village. The anchorage at Boston may become untenable during E winds.

9.54 Catarman Anchorage (8°00'N., 126°26'E.) is formed between the reef fringing the N side of Catarman Point and the coastal reef enclosing the Majangit Islands to the N. The reef forming the N side dries at LW.

The entrance channel is reduced in width to 0.2 mile by a small detached reef lying close off the N side of the entrance. Safe anchorage can be obtained about 0.5 mile W of the small detached reef.

Lingig (8°02'N., 126°25'E.), lying about 3.25 miles NW of Catarman Point, is a port of call for inter-island vessels.

Small vessels with local knowledge can anchor, in 3.7m, sand, about 0.5 mile ESE of Lingig.

Tambog Point (8°06'N., 126°27'E.), 4.5 miles NE of Lingig, is covered with scattered trees and bushes, and is prominent. It has two prongs, the S being the higher of the two with an elevation of 15m.

Barcelona (8°10'N., 126°26'E.) lies about 3.7 miles NNW of Tambog Point. There is a break in the coastal reef abreast the town, which forms an inlet. Vessels can anchor in the middle of the inlet, in a depth of about 12.9m.

Sanco Point (8°15'N., 126°27'E.), 5.5 miles NNE of Barcelona and marked by a light, is low, thickly covered with bushes, and has a white, sandy beach on it.

Valencia (8°14'N., 126°27'E.), a small town which is not visible from offshore, stands near the SE extremity of Sanco Point.

9.55 Bislig Bay (8°14'N., 126°23'E.) is entered between Sanco Point and Mawes Island, lying about 4 miles to the NW. The NW shore of the bay is low and bordered by mangrove. The head of the bay is low and fronted by mud flats. The SE part of the bay is rocky and rather steep. A town stands in the NW corner of the bay.

Mangagoy (8°11'N., 126°21'E.), a timber loading port, lies in the SW corner of Bislig Bay. The buildings of the town and two sawmills are prominent. Twin spires stand about 0.3 mile SW of the sawmills.

A hill, 280m high, lying 2 miles S of Mangagoy, is also prominent. Three oil tanks, two painted black and one silvergray, stand near the shore close S of the timber pier.

A timber loading pier is situated 0.75 mile NE of Mangagoy. The berthing space is 168m long on either side, with alongside depths of 6.7 to 8.4m. The pier is exposed to the swell,

especially during the height of the Northeast Monsoon (January to March).

Vessels must be prepared to leave the berth at short notice. The largest vessel accepted is 152m and 18,000 dwt. Vessels usually berth heading SW but during the Northeast Monsoon should berth heading NE.

A breakwater with an L-shaped concrete pierhead stands 0.75 miles ENE of the timber pier. The breakwater projects 790m into the bay and has a head 130m long.

The berth for large vessels (operated by the PICOP timber company) with a maximum draft of 9.1m, is on the W side of the pier. A patch, with a depth of 4m, lies off the head of the breakwater.

Pilotage is compulsory and must be requested 48 hours in advance.

Vessels anchor, in a depth of 12.8m, 0.75 mile N of the head of the L-shaped pier. Vessels also anchor 2 miles E of the mouth of the Bislig River, in a depth of 9.1m.

The quarantine anchorage can best be seen on the area chart.

9.56 Hinatuan Bay (8°21'N., 126°22'E.) is entered N of Bislig Bay. The coastline at the head of the bay is fronted by reefs and shoals to a distance of 2.25 miles.

A small stream discharges into this part of the bay. Depths of 6 to 46m are found in the middle of the clear part of the bay. A number of small islands lie in the bay and in its entrance.

Hinatuan (8°22'N., 126°20'E.) (World Port Index No. 59380) stands on the N side of Hinatuan Bay.

The town is visible from well outside the bay. Within the town, the church is conspicuous.

Vessels usually anchor, in 7.4m, mud, about 1.5 miles SE of the mouth of the Hinatuan River. The approach to the anchorage is clear and about 1 mile wide.

Lamon Point (8°28'N., 126°24'E.) stands about 7 miles NE of Hinatuan. The point is made up of rocky cliffs.

Bagasinan Island lies about 1.3 miles SSW of Lamon Point. The E end of the island is separated from the rest of the island by a narrow and shoal passage.

Lamon Anchorage (8°28'N., 126°23'E.) (World Port Index No. 59370), an inlet nearly 2 miles long and having a navigable width of about 0.2 mile at its narrowest point, lies between the reef N of Bagasinan Island and the reef fringing the coast to the W of Lamon Point.

Vessels usually anchor off a ruined pier, which is situated about 1.3 miles W of Lamon Point, in a depth of 12m.

Singag Island (8°33'N., 126°23'E.) lies about 1.3 miles E of Bakulin Point. The island is separated from the mainland by a narrow and foul channel, with a depth of 5m in its middle part.

9.57 Lianga Bay (8°37'N., 126°10'E.) is entered between Bakulin Point and Jobo Point, about 11.5 miles NW.

The bay indents the coast for about 13 miles in a W direction. The N shore of the bay is bordered by mangroves and rounded hills. The S shore of the bay is higher and is fringed by a wide reef. The bay is clear of dangers in its middle part.

Depths of over 37m are found throughout the greater part of the bay, except for a 15m patch and a 22m patch.

Panirongan Island (8°35'N., 126°07'E.) lies at the head of the bay and appears to be part of the mainland. A narrow boat

channel separates the two. A village stands on the SE shore of the island.

A small islet lies off the E side of the island. A number of islands and islets lie off the N and S shores of the bay and can best be seen on the chart.

Lianga (8°38'N., 126°06'E.), a small port, lies at the head of the bay. The town church is prominent from seaward. A concrete tower stands on the reef E of the town. An L-shaped pier stands 1 mile NE of the town. A private pier stands 0.5 mile N of the town and is only used by small boats.

Vessels can anchor, in 37m, with the church bearing 289°. This anchorage is sheltered only during the Southwest Monsoon (May to September).

There also is anchorage available, in depths of 20 to 22m, with **Malinonok Island** (8°39'N., 126°08'E.) bearing 224° at a distance of 0.7 mile.

9.58 Oteiza Bay (8°44'N., 126°13'E.) is entered between Jobo Point and an unnamed point lying about 5.8 miles to the NE. The N and S shores of the bay are bordered by mangroves and fringed by a drying reef.

A river discharges into the N part of the bay. A town stands near the N side of the mouth of the river. A second town stands on the S shore of the bay. Vessels anchor, in 12.8m, SE of the N town.

Ayninan Island (Agninan Island) (8°47'N., 126°18'E.) lies about 1.3 miles ENE of the N entrance point of Oteiza Bay.

A deep passage, about 0.1 mile wide, separates the islet from the shore reef of the mainland. There is anchorage, in 29 to 33m, about 0.8 mile NE of the islet.

Marihatag (8°48'N., 126°18'E.), a small village visible from seaward, stands about 1.3 miles NW of Ayninan Island. The town stands on the S side of the mouth of a river of the same name. The river can only be entered by small boats at HW.

Santa Cruz Bay (8°50'N., 126°20'E.), situated 2.25 miles NE of Marihatag, is about 0.8 mile wide at its entrance and extends about 1 mile W. A small town stands at the head of the bay. The bay is unsuitable for shipping.

9.59 Bitaogan Bay (8°53'N., 126°19'E.), about 1.5 miles wide at its entrance, is very shallow at its head. A reef, about 0.2 mile wide, fringes the N side of the bay.

Aras-Asan (8°53'N., 126°19'E.) (World Port Index No. 59360) stands on the W side of the bay. Vessels call to load lumber.

Arangasa Islands (8°53'N., 126°20'E.), three in number, lie on a reef in the entrance to Bitaogan Bay. Arangasa Island shows a light.

The largest island is merely a mangrove patch. The third island, close S of Arangasa Island, is small and covered with brush.

Vessels usually anchor, in 22m, in the S part of Bitaogan Bay, with the S extremity of Arangasa Island bearing 096°, in mid-channel, between the reef on which Arangasa Island lies and the SW shore of the bay.

Vessels with local knowledge anchor in the N part of the bay, E of Aras-Asan, in a depth of 18m.

Caguait Cove (8°56′N., 126°18′E.), a small cove, lies 3.25 miles NW of Bitaogan Bay. The entrance is about 0.3 mile wide with a depth of 12.8m. A village stands on the S shore of the cove. There is anchorage in the cove for small vessels with local knowledge.

Magabao Cove (8°59'N., 126°16'E.) is 3.25 miles NW of Caguait Cove. It is 0.5 mile wide at its entrance. A 6.7m patch lies in the middle of the entrance.

The **Tago River** (9°01'N., 126°14'E.) discharges 3 miles NW of Magabao Cove. A narrow channel, with a depth of 1.9m at LW, leads across the bar. A small town stands on the N bank of the river.

9.60 Tandag (9°05'N., 126°12'E.) (World Port Index No. 59350), a small seaport lying about 5 miles NW of the Tago River, stands on Tandag Point, which is low and flat. The church and a number of buildings in the town are prominent. A stone mole, with 2.1m alongside, stands near the point.

Lenungan Island (9°05'N., 126°12'E.) is the larger of two steep, high, densely wooded, and rocky islands lying close off the N side of Tandag Point. The smaller of the two is oval in shape.

Vessels can obtain anchorage, in depths of 13 to 18m, about 0.3 mile W of the N end of Lenungan Island.

Macangani Island (9°07'N., 126°14'E.), 79m high and covered with small trees and brushwood, lies on the S part of a bank 2.5 miles NNE of Tandag Point. The island is prominent. Two bare rocks lie close off the N end of the island.

Panisaan Point (9°10'N., 126°10'E.), lying about 5.5 miles NNW of Tandag Point, rises steeply from the water's edge. There is a dome-shaped mountain W of the point. It is a good landmark, but is frequently obscured in cloudy weather. An 11m patch lies about 1.5 miles SSE of the point.

Taganauan Island (9°14'N., 126°12'E.) lies on the coastal reef about 4 miles NNE of Panisaan Point. The island is small and covered with mangroves.

Several islets and rocks lie close off the E side of the island.

9.61 Cauit Point (9°18'N., 126°12'E.), situated about 4.8 miles N of Taganauan Island, is the NE extremity of a rugged and well wooded peninsula. The point is high and rather steepto on its N side.

A light is shown on the point. The E and S sides of the point are fringed by a reef that extends up to 0.6 mile offshore.

Cauit Bank (9°20'N., 126°15'E.), with depths of 14.7 to 18.4m, lies from 2.75 to 4.25 miles ENE of Cauit Point.

A constant S current has been observed on this coast at a distance of over 4 miles from the shore, with a rate of 1 to 2 knots.

The tidal currents flow N on the flood tide between the numerous reefs lying in the bays on this coast.

Anchorage, in about 22 to 37m, sand, or sand and rock, can be taken anywhere along the coast between Panisaan Point and Cauit Point.